

REMARKS

Claims 1-3, 5-7, 10-13, 15-17, and 20 are presently pending. Claims 4, 8, 9, 14, 18 and 19 are cancelled without prejudice.

Claims 1 6, 11, and 16 recite, among other limitations, "decimating the frame/portion". Examiner has indicated that "Abe does not explicitly disclose decimating the portion of audio, thereby causing the portion to comprise a predetermined number of samples". However, Examiner has indicated that "De Lima Araujo discloses decimating a portion of a speech signal" and that "It would have been obvious to one with ordinary skill in the art at the time of the invention to decimate Abe's audio signal thereby causing the portion to comprise a predetermine number of samples in order to reduce fusion errors (De Lima Araujo, pages 209, col. 2, paragraph 1)."

Assignee respectfully traverses the rejection and submits that Abe teaches away from the foregoing combination. Abe teaches that "Particularly, the frequency width expressed by the above formula $w(t)$ tends to be wide and constant in the case of music, whereas it does not remain constant and tends to widely vary in the case of voice. Therefore, the frequency width $w(t)$ can be used as a characteristic quantity of music, voice and other sounds." Assignee submits that "to decimate Abe's audio signal", as proposed by Examiner would impair determining the frequency width as taught by Abe.

Moreover, Abe teaches that "a total of five hundreds and twelve (512) samples obtained (by every 31.25 milliseconds) by using a sampling frequency of 16 kHz are used for the spectrum". Col. 6, Lines 59-63. Abe teaches

that "Particularly, voice practically does not contain any component of 4 Khz and 8 kHz and above, whereas the sounds of percussion instruments such as cymbals normally contain a number of frequency components between 4 KHz and 8 KHz. Therefore, the high frequency component can be used as a characteristic quantity of music, voice, and other sounds." Assignee submits that "to decimate Abe's audio signal", would eliminate the high frequency components, thereby they could not "be used as a characteristic quantity of music, voice, and other sounds."

Accordingly, Abe bases the "characteristic quantity" on "the frequency width" and "high frequency component", and classifies "the signal of each block into a category according to the signal to the characteristic quantity". Col. 3, Lines 49-51. If the De Lima Araujo was combined with Abe "to decimate Abe's audio signal", Abe would not be able to classify the signal into a category. Thus the combination of Abe and De Lima Araujo would be inoperable to "classifying the signal". Therefore, the modification proposed by Examiner renders Abe unsuitable for its intended purpose.

Accordingly, Assignee requests that Examiner withdraw the rejection to claims 1, 6, 11, and 16, and to dependent claims 2, 3, 5, 7, 10, 12, 13, 15, 17, and 20

Additionally, claim 21 is added reciting among other limitations, "Classifying the audio signal based on the comparison of the residual energy of the decimated portion to the threshold". Assignee respectfully requests allowance. It is noted that the proposed combination of Abe and De Lima Araujo does not teach "Classifying the audio signal" because Examiner proposed modification "to decimate Abe's audio signal" cannot be combined with Abe's teaching

of "classifying the signal of each block into a category according to the signal to the characteristic quantity".

CONCLUSION

For at least the foregoing reasons, each of the pending claims is in a condition for allowance. Examiner is requested to pass this case to issuance.

Please charge any required fees not paid herewith or credit any overpayment to the Deposit Account of McAndrews, Held & Malloy, Ltd., Account No. 13-0017.

Respectfully submitted,



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November 3, 2008

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